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Applicant : John A. Crockett
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Commissioner for Patents P.O. Box 1450 Alexandria VA 22313-1450

Response 5/17/2008, by John A. Crockett, Applicant

Response to Office Action mailed 3/17/2008

Based on information below, 35 U.S.C. 103(a) is not reasonably applicable as the basis for rejection, and we respectfully request that objection be withdrawn

There is a vital and critical element not mentioned by either McNelly or Ouellette itemized in our section "C" of our claims, bold and highlighted below.
(1-c (Original) **drains located in all low points of the air ducts)**

A search of the Ouellette and McNelly patents looking for the word "drain" shows no occurrences of the word "drain" in either Ouellette or McNelly. Likewise, the word "condensate" is not found.

In a large scale system, that condensate can easily exceed 10,000 gallons a day, based on our hands on experience, very quickly blocking air flow, and the functionality of the entire system, aeration as well as heat capturing. Significant and vital system design engineering goes into the management of that high volume of condensate, much of which accumulates in air ducts between the compost and the heat exchanger, making it a significant detail, which must be managed for the system to work.

By October of 1999 we were capturing massive heat from a 165 cubic yard pile of food waste compost, including quickly learning that there was very significant condensate from the aeration system, prior to any heat exchangers, that had to be managed. When we originally set up the system, we did not realize the need for the drains, it was not obvious to us, until we had some hands on experience. On that system the air pressure (vacuum) was -0.250", water column, about $1/96$ psi, so that flooding of any of the air ducts would block the air flow, rendering the system non-functional. Our hands on research with our own composting systems repeatedly shows that the condensate, prior to any "heat exchanger" used for the

purpose of capturing heat, can easily exceed 10 gallons, per cubic yard of compost, per day.

The way McNelly configures his systems, with the primary heat exchanger within the vessel, there are no aeration ducts to accumulate and be flooded by condensate, and thus there was no reason for him to factor them into his design or patent claims.

Simply putting a heat exchanger in the aeration circuit, without drains, which McNelly and Ouellette do not mention, would not create a functional system.

There is a difference between having drains at a heat exchanger, and having drains in the duct work and / or aeration veins prior to the heat exchanger. One does not necessarily mean the other is included. I started installing automatic, air tight, drains in aeration systems in 1998, because hands on experience was showing that they were needed.

Even with McNelly and Ouellette, **the fact that we are unable to find reference to any systems using our technology, history is showing that our technology is not obvious, in the light of the above.** Since 2003, and including 2005-2006, there are systems being built using the Ouellette technology, and other simplified and far less efficient systems, not taking advantage of the economies, efficiencies and simplicity of our technology / system, even with skyrocketing energy costs and the urgent need for cost efficient renewable energy systems.

Therefore, 35 U.S.C. 103(a) is not reasonably applicable as the basis for rejection, and we respectfully request that objection be withdrawn, on the basis that our claims are unique, and not obvious when considered as a whole.

Listing of Claims:

1. (Original) A method for capturing surplus microbial metabolic heat from compost, comprising of:
   - a. (Original) a forced aeration system to move fresh air through the compost, providing oxygen for the microbes, and removing excess heat from the compost,
   - b. (Original) With the forced air, after it has passed through the hot compost, being routed through the primary side of a heat exchanger,
   - c. (Original) **drains located in all low points of the air ducts and said heat exchanger, to enable draining off condensate from the cooling air, to prevent the**